SACRAMENTO DISTRICT INSTRUCTIONS TO:
CEGS-02720

PART 1 GENERAL

REFERENCES

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) - Delete AASHTO T 180.

Justification for District change (Construction Quality Control)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

Delete: ASTM D 1557, 2167, 2922 and 3017.

Add:

ASTM D 1171 (1982) Density of Soil in Place by the Sand-Cone Method.

ASTM D 4253 (1983) Maximum Index Density of Soils Using a Vibratory Table.

Justification for District change (Construction Quality Control).

PART 2 PRODUCTS

Add after Flexible Watertight, Gasketed Joints

For Watertight Corrugated Metal Pipe Joints Under Levees

All joints in corrugated metal pipe shall consist of corrugated coupling bands that mesh with pipes to be connected. The bands shall be seated on 3/8-inch thick by width of the band minus 1/2-inch gaskets made of closed cell, expanded synthetic rubber, fabricated in the form of a cylinder diameter approximately 10 percent less than the nominal pipe size. The gasket material shall conform to the requirements of ASTM D 1056, Grade SBE 40 or SCE 43 and shall have a quality retention rating of not less than 70 percent when tested for weather resistance by ozone chamber exposure,

Method B of ASTM D 1171. The connecting band should be either the angle-lug or rod-and-lug type corrugated coupling bands of the same material, coating and thickness as the pipe specified. Bands with projections or dimples will not be permitted. The bands should provide a minimum circumferential lap of 3 inches and be formed to fit and mesh with the corrugations of the pipe to be connected.

a. Angle-Lug Type - The bands not be less than 7 inches wide for pipe 6 to 30 inches in diameter, and 24 inches wide for pipe 66 to 120 inches in diameter. The bands should have end connection angles of not less than 2 inches by 2 inches by 3/16-inch by the width of the band minus 1-inch adequately fastened to each end and shall be secured with 1/2-inch diameter bolts. The 7-, 12-, and 24-inch bands shall be secured with a minimum of 2, 3 and 5 bolts, respectively.

b. Rod-and-Lug- Type. The bands shall not be less than 12 inches wide for pipe 6 to 60 inches in diameter, and 24 inches wide for pipe 66 to 120 inches in diameter. Bands shall be secured with 1/2-inch diameter circumferential roads and cast-iron, silo-type lugs. A minimum of 4 circumferential rods shall be used per band for pipes 6 to 30 inches in diameter, 6 circumferential rods per band for pipes 36 and 60 inches in diameter, and 8 circumferential rods per band for pipes 66 to 120 inches in diameter. Circumferential Rods, Lugs, Connection Angles, Bolts, and Nuts

Circumferential rods, lugs, connection angles, bolts, and nuts shall be galvanized after fabrication. After installation of coupling bands, the entire exterior of each joint assembly, including bands, rods, lugs, angles, bolts and nuts shall be given one coat of cold applied bituminous compound conforming to AASHTO M 243. Justification for District change (EL 1110-2-212, 12 January 1976)

PART 3 EXECUTION

Determination of Density - Line 6: Delete remainder of paragraph after "relations shall be made in accordance with" and add ASTM D 1557, Method B or D, except that mechanical tampers may be used provided the results are correlated with those obtained with the specified hand tamper. Grandula cohesionless material may be tested in accordance with ASTM D

4253. Field density tests shall be performed in accordance with ASTM D 1556, and moisture density relations shall be determined in accordance with ASTM Test Method D 1557, Method B or D. Justification for District change (Construction Quality Control)

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NOTE: No asbestos containing material shall be used (AR 200-1, 23 May 1990) Guide shall be edited to reflect this.
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Add to paragraph 3.1 EXCAVATION FOR PIPE CULVERTS. STORM DRAINS AND DRAINAGE STRUCTURES:

"[and 2210.1 EARTHWORK]"

Reference Paragraph 3.2 BEDDING: Delete "When no bedding class is specified or detailed on the drawings, concrete pipe shall be bedded carefully in a soil foundation accurately shaped and rounded to conform to the lowest one-fourth of the outside portion of circular pipe or to the lower curved portion of pipe arch for the entire length of the pipe or pipe arch."

Delete "either" and "or fine grade the foundation to a shallow v-shape".

Reference Paragraph 3.7.1:

Delete "elsewhere in this paragraph" and substitute "[SECTION 02222 EXCAVATION, TRENCHING AND BACKFILLING FOR UTILITIES SYSTEMS] [SECTION 02210.1 EARTHWORK]".

Reference Paragraph 3.7.4:

Reword to read as follows:

"Compaction

Compaction shall be performed per [SECTION 02222 EXCAVATION, TRENCHING AND BACKFILLING FOR UTILITIES SYSTEMS] [SECTION 02210.1 EARTHWORK]".

Delete Paragraphs 3.7.4.1, 3.7.4.2, and 3.7.5.